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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,200	04/02/2001	Yoshinori Murata	81800.0153	4130

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EXAMINER	
ABRAHAM, ESAW T	

ART UNIT	PAPER NUMBER
2133	8

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/825,200	Applicant(s) MURATA, YOSHINORI	
	Examiner Esaw T Abraham	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Final rejection

Response to the applicant's amendments

********The examiner accepted the new amended title filed on 12/03/03.

********Applicants' argument/amendments with respect to amended claims filed on 12/03/03 have been fully considered but are not persuasive. The examiner would like to point out that this action is made final (MPEP 706.07a).

Response to the applicant's argument

In response to the applicants' argument that the references fail to teach changing a current modulation method to a different modulation method and maintaining when error is detected, However, this argument is moot. This is so because the prior art (Soumiya et al.) teach error correction patterns are derived using the characteristics of the multi-phase differentially encoded modulation from ITU-T V.27ter (see col. 6, lines 52-62) and ITU-T V.29 (see col. 10, lines 40-45) and Soumiya et al. further teach a method that requests a transmitter to re-transmit data when an error is detected in the received data wherein the data are corrected by using ECM (error correction mode) functions (see col. 1, lines 11-27). Yoshida in support of Soumiya in figure 1 teach a modem (8) connected to a controller and modulate coded data wherein a modulation is conducted in accordance the ITU-T and further comprise plurality of modem capability levels (modem change functionalities) (see col. 3, lines 1-9 and col. 2, lines 36-67). Furthermore, Yoshida teach a detection means for detecting a communication protocol related to the controller (see claim 2). In light of the above explanation, the final rejection holds strong in view of the recited references.

DETAILED ACTION

Information Disclosure Statement

1. The references listed in the information disclosure statement submitted on 07/07/03 have been considered by the examiner.

Claim objections

2. Claim 1 is objected to because of the following informalities:

Please change the term "difference modulation method" to "different modulation method" in claim 1 line 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims **1-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Soumiya et al. (U.S. PN: 5,761,217) in view of Yoshida (U.S. PN: 6,046,825).

As per claims **1, 9 and 17,** Soumiya et al. in figure 1 disclose a circuit structure of facsimile device comprising a CPU (see element 1) controls the operations of the entire facsimile device wherein the CPU (1) includes an error recovery means to detect and correct an error line, a Network Control Unit (NCU) (see element 4) controls the connection to the telephone lines and a modem (see element 5) carries out modulation of image data to be transmitted in accordance with a multi phase differentially encoded modulation method of recommendation V.27ter of the ITU-T (See col. 3, lines 65-68 and col. 4, lines 1-22). Soumiya et al. further, teach an error recovery method comprising the steps of preparing error correction patterns that are prescribed corresponding to modulation method of the data and when an error is detected in received data, applying the error correction patterns corresponding to the modulation method of the received data to the same data thus correcting the error, wherein when an error data is corrected, after all the error correction patterns have been applied to one part of one line of image data including error data, the error correction patterns are again applied to the part of the line of image data (see claim 1). Furthermore, Soumiya et al. teach that the error recovery method includes a process that carries out a logical operation by applying the error correction pattern to one part of one line of image data including error data and a process that determines whether logically operated data is an error line or not are repeated while the location where the correction pattern is applied to the image data is changed, and one data is chosen as correctly recovered line (see claim 6). Soumiya et al. do **not explicitly** teach a controller that changes a current modulation to different modulation. **However,** Yoshida in an analogous art (in figure 1) teach or disclose a transmission

unit comprising a control circuit (see element 20) and a modem (see element 8) coupled to the control circuit to generate a modulated signals (see col. 2, lines 58-66). Further, Yoshida teach that the modulation conducted in accordance with the ITU-T Recommendations V.21, V.27ter, V.29, V.17, V.8 and V.34 and the contents of the modulation (modulation levels) by the modem are instructed or changed by the signal supplied from the control circuit (see element 20) through a signal line (see element 20c) and the transmission mode is determined by the instructed modulation wherein the signals supplied from the control circuit (20) to the modem (8) through the signal line are those for specifying the transmission mode, the reception mode and the transmission speeds (see col. 2, last paragraph). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to modify the teachings of Soumiya et al. to include a controller coupled to a modem to instruct or change the contents of modulation as taught by Yoshida. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because it would be relatively high for achieving a reduction in power consumption and increasing in speed of decoding operation.

As per claims **2, 3, 10, 11, 18 and 19,** Soumiya et al. in view of Yoshida teach all the subject matter claimed in claims 1 and 17 including Soumiya et al. teach that error recovering device is provided with memory means for pre-memorizing error correction patterns prescribed corresponding to the modulation method of the data, detection means for detecting an error in the received data and a correction means correcting error by applying an error correction pattern corresponding to that modulation method of the received data to the same data when an error is detected (see col. 3, lines 5-17). Yoshida teach a control of the determination of the

communication mode includes a first control, a second control, a third control and a fourth control whereby in the first control, a communication mode with the destination station is determined based on registered information in a transmission speed dependent ECM registration circuit (see abstract). Yoshida further teach a selection of the ECM contents stored in an internal memory of the control circuit (20) (see col. 11, lines 17-30).

As per claims **4, 12 and 20,** Soumiya et al. in view of Yoshida teach all the subject matter claimed in claims 1 and 17 including Yoshida teach that the modulation and demodulation processes are conducted in accordance with the ITU-T Recommendations V.21, V.27ter, V.29, V.17, V.8 and V.34 (see col. 2, last paragraph).

As per claims **5-8, 13-16 and 21-24,** Soumiya et al. in view of Yoshida teach all the subject matter claimed in claims 1 and 17 including Yoshida teach that the modulation and demodulation processes are conducted in accordance with the ITU-T Recommendations V.21, V.27ter, V.29, V.17, V.8 and V.34 (see col. 2, last paragraph). Further, Yoshida in figure 1 teach that the registered information of the transmission speed dependent ECM registration circuit (see element 10) comprises information indicating the execution or non-execution of the ECM in association with the respective permitted transmission speeds and the information is registered through a signal line (see element 10a) and the registered information comprise information indicating the execution of the ECM for the transmission speeds of 14.4 Kb/s and 12 Kb/s and information inhibiting the execution of the ECM for the transmission speeds of 9.6 Kb/s, 7.2 Kb/s, 4.8 Kb/s and 2.4 Kb/s (see col. 3, last paragraph).

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US PN: 6,438,105 Qarni et al.

US PN: 5,907,632 Suzuki

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (703) 305-7743. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Esaw Abraham

Art unit: 2133

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100